



INDUSTRY



Manufacturing Industry

The factors which give competitive strength to Turkish manufacturing industry are its geographical proximity to the export markets, developed infrastructure and telecommunications systems, the existence of young and trained human resources, a large domestic market and the liberal economic policies in force.

After the crises sustained in year 2001, when manufacturing industry growth rate had declined -9.9 % for the last time, Turkish economy started to build up its recent strong standing. In 2002 economy recovered; manufacturing industry growth rates reached 9.1 % in 2002, 7.8 % in 2003, 9.4 % in 2004, 6.5 % in 2005, 7.4 % in 2006 and 5.4 % in 2007.

In 2007 the manufacturing industry exports reached USD 86 896 billion with a share of 81 % in total exports. The main export sectors were automotive and parts, clothing and textiles, machinery, electrical machinery, iron and steel products, plastic and plastic articles.

Automotive and Auto Parts Industries

Turkey's vehicle industry production story goes back to till mid-1950s, and reaches today with a huge enhancement.



Today 15 companies are manufacturing various types of vehicles such as passenger cars, buses, trucks, pickups, mini and midi buses and trailers. Five companies are producing passenger cars (RENAULT, TOFAS (FIAT), TOYOTA, HYUNDAI, and HONDA). Nine companies are producing pick-ups and trucks (ANADOLU ISUZU, BMC, ASKAM, M.A.N., MERCEDES-BENZ, FORD OTOSAN, OTOYOL, TEMSA,



and TOFAS). Ten companies are producing buses and mini buses (ISUZU, BMC, KARSAN, MERCEDES-BENZ, HYUNDAI, OTOKAR, FORD OTOSAN, OTOYOL, TEMSA, and M.A.N.) The Turkish vehicle industry has a total capacity of 1 311 105 vehicles, of which 796 000 (65 %) is for passenger cars. The total vehicle production in 2007 was 1 132 932 (including tractors) units. At present, Turkey is the largest bus and the third biggest light commercial vehicle manufacturer in the European Union.

Total automotive vehicle exports reached 829 879 units in 2007. Passenger car exports grew by 14 %, whereas commercial vehicle exports increased by 39 % in the same period. The export value of passenger cars, trucks and buses was USD 6.8 billion, USD 4.1 billion and USD 1.3 billion respectively. The main export markets for the automotive industry were Italy, France, Germany, the United Kingdom, Spain, Romania, and the Russian Federation. In 2007, 71 % of automotive industry exports in value were delivered to EU Countries.

In recent years a highly competitive components industry has developed in Turkey, providing products compatible with brands such as GM, Mercedes, BMW, Opel, Toyota, Fiat and Ford.

In 2007 the value of auto parts industry exports was USD 5.9 billion. The main auto parts products exported are engine parts, tires and tubes, road wheels and parts, accessories for bodies, rubber parts for motor vehicles, transmission shafts and cranks, brakes and servo brakes, seats for motor vehicles and clutches and clutch parts. In fact, Turkey exports many cars, buses and trucks in parts. In 2007 about 65 % of auto parts exports were directed to the EU Countries.

Machinery Industry

Turkey is emerging as a machine maker. The product range of the Turkish machinery industry includes combustion engines and turbines, boilers and burners, building machinery, heavy industrial machinery, machine tools, milling machines, drilling machines, cutting and bending machines,



woodworking machinery, pumps and compressors, hand tools, air conditioning units, textile machinery, food processing machinery, hoisting and conveying machinery, sewing machines, refrigerators and washing machines (both domestic and industrial), valves, gears and bearings. The Turkish machinery industry is able to produce almost all of the parts and accessories for the above items with competitive prices and of high quality. The average local input content in the production stage is around 80–85 %.

The machinery manufacturing industry has particular importance for Turkey due to its promising export potential and recently recorded an outstanding increase in exports compared to Turkey's overall exports. In 2007, the export value of the machinery industry (HS 84) was USD 8.75 billion, indicating a 34 % increase compared to 2006 figures.

In 2007 Germany is the main customer of made in Turkey machinery. Germany is followed by the United Kingdom, France, Italy, the United States, the Russian Federation, Romania, Spain, Iraq, Iran, Poland, Kazakhstan, Bulgaria, Azerbaijan, Greece and Ukraine, which are other important markets for Turkish machinery exports.



The most important product groups in exports were refrigerators and other household appliances (with an export value of USD 2.86 billion in 2007), engine and spare parts (USD 1.4 billion), construction and mining machinery (USD 841 million), machine tools (USD 538 million), pumps and compressors (USD 535 million), agricultural machinery and equipment (USD 384 million), textile machinery (USD 238 million) and food processing and packaging machinery (USD 208 million).

The Turkish machinery manufacturers/exporters follow European and international standards and norms. Under the process of technical harmonization with EU, the obligation to affix the "CE Mark" is on force in the Turkish market.

Electrical Machinery Industry

The electrical machinery sector, which consists of investment and intermediate goods, has vital importance in Turkey. The Turkish electrical machinery sector vitalized itself in the 1990s by diversifying its products and adopting recent technologies and innovations in product design and in production processes. Therefore, the share of the electrical machinery industry increased to 4 % of the manufacturing industry; sector exports increased to USD 4.5 billion in 2007.

Basically Turkey produces almost all kinds of electrical machinery. Major products covered by the industry include cables and wires, transformers, electrical equipment, electrical distribution and control equipment, accumulators, electric motors and generators, lamps and batteries.

In 2007, the United Kingdom was the most important buyer of Turkish electrical machinery. UK is followed by Germany, Iraq, Saudi Arabia, the Russian Federation, Italy, France, Kazakhstan, Romania and the United Arab Emirates.

Electronics Industry

Turkish electronics industry has been investing more in R&D in the recent years and is taking elements of non-price competition such as



quality and technology into account. As a result, exports have increased. The total value of electronics exports reached about USD 4 937 million in 2007.

The electronics industry in Turkey has developed sizeable capacity especially in two sub-sectors: consumer electronics and telecommunications. Consumer electronics have the largest share in total production of electronics in Turkey. Export value of consumer electronics sub sector realized as USD 2 150 million in 2007 which has a 43.5 % share in total electronics export. The most important consumer electronics product is the color TV. Color TV exports were USD 2 468 million in 2007. Almost all color TV exports were destined to the European Union countries in 2007. Turkish color televisions have about 43 % market share in European market.



Developments in the world telecommunications sub - sector, such as intensive infrastructure investments were reflected in the telecommunications sub-sector exports. In 2007, the export value of the telecommunications sub-sector reached USD 1.7 billion. Turkey has a large potential for telecommunication cables production. Export of telecommunication cables was USD 1 349 million in 2007. At present, the top markets for Turkish telecommunications cables are Iraq, Saudi Arabia, Israel, the United Kingdom, Kazakhstan and the Russian Federation. Most of the fiber optic cables produced in Turkey are exported and total export value was USD 43.2 million in 2007. At present, the major export markets for fiber optic cables are the U.S.A, Mexico, Germany, the United Kingdom and Canada.

Iron & Steel Industry

As the iron and steel industry is the input within almost all manufacturing sectors, it plays an important role in the industrialization and development of a country. Raw steel production in Turkey rose to 25.7 million tons and Turkey became the 11th largest steel producing country in the world by the end of 2007. By product type, 84 % of total steel production was directed to long products which are mostly used in the construction sector, about 14 % was for flat products and 2 % was for special steel in 2007.

The iron and steel industry has become one of the major driving forces in the development of Turkish exports. In recent years, with the positive

developments in economy in general, the iron and steel sector has shown outstanding performance due to high export increase and increase in domestic demand. Developments in the iron and steel sector have also a positive influence on the growth of production in iron or steel articles. At present Turkey produces a wide range of iron and steel articles which meet almost all the domestic demand. Among iron or steel articles, in welded and seamless iron & steel pipes and tubes, in casting products, and in steel industrial kitchen products Turkey has build a considerable production and export capacity.

In 2007, iron & steel and articles of iron or steel exports reached totaling USD 12.4 billion with 30 % growth. In the same year, major markets for Turkish steel exports were the UAE, Spain, Romania, the UK and Germany.

Shipbuilding

Shipbuilding is a 600 year old tradition in Anatolia. Today's Turkish shipbuilding industry has modern, technologically developed and quality certified shipyards, together with well experienced work force.

In Turkey's 48 shipyards (2 public sector, 3 military and 43 private), brand new ships, yachts, mega-yachts and sailing boats are being manufactured. In addition to these, repair and maintenance services are provided for the vessels. Turkish Shipyards have:

- 10 million DWT repair and maintenance capacity
- 1.8 million DWT new ship building capacity
- 600 000 ton steel processing capacity
- 80 000 DWT new ship building capacity as one piece

Turkish shipyards which have one of the greatest floating docks of the world with 80 m length, 355 m width and 300 000 DWT floating capacity also give services with other various floating docks.

Turkish and foreign flag ships which are produced by Turkish shipbuilders varied according





cruise ships, excursion boats, ferry-boats, cargo ships, barges and similar vessels for the transport of persons or goods with a value of USD 1.5 billion. In the same year exports of yachts and other vessels for pleasure or sports; row boats and canoes ranked second with USD 127 million. The major markets for the Turkish shipbuilding industry were Malta, Germany, Netherlands and the Marshal Islands. In 2007 subsidiary industries exports reached USD 7 million and are expected to increase further. Marine propulsion engines were the main exported products.

Chemical Industry

Turkey has been manufacturing chemicals for very long time, being a producer of many basic and intermediate chemicals and petrochemicals. The production value of the Turkish chemical sector has reached about EURO 15 billion in 2006, which includes petrochemicals, inorganic and organic chemicals, fertilizers, paints, pharmaceuticals, soaps and detergents, synthetic fibers, essential oils, cosmetics and personal care products.

Turkey has two petrochemical complexes which have a total production capacity of 1 903 000 tons/year. A wide range of petrochemicals, all common plastics (HDPE, LDPE, PS, PVC, and PP), aromatics, ethylene glycol, phtallic anhydride, terephthalic acid, carbon black, synthetic rubber, acrylonitril and caustic soda are produced.

The Turkish chemical industry has competitive power for various chemicals because of raw material advantages. Turkey is among the main producers of

to their types and tonnage capacities. They are classified as petrol tankers, chromium-nickel tank chemical ships with coating, container ships, multi- and special-purpose ships, military vessels, and vessels for fishing purposes, servicing tankers, bunker barges, tugboats, mega yachts and other types of sailing or motor boats. These vessels were manufactured in accordance with international standards and under the supervision of certain societies.

Being the top manufacturer of low-tonnage chemical tankers in Europe, Turkish shipyards receive many orders for petrol tankers, chemical tankers and multipurpose container ships.

Mega-yacht manufacturing is another important production area of Turkish shipyards. Turkey has been number four on the world list of mega-yacht (yachts longer than 25 m.) manufacturers for the last three years.

Due to the developments in Turkish shipbuilding industry and growing world demand, there has been a sharp increase in production volume and product diversity. In 2007, Turkey's shipbuilding industry exports reached USD 1.8 billion, with a 28 % increase and expected to increase further in the years ahead. The main export product group was





soda ash, chrome and boron chemicals. Being among the top five countries supplying chrome ore to world markets, Turkey produces and exports some of the most important chrome chemicals and derivatives such as sodium bichromate, basic chrome sulfate, chromic acid and chrome oxide. Turkey also enjoys a comparative advantage in boron chemicals (borax decahydrate, borax pentahydrate, boric acid and sodium perborate) due to the size of her reserves, the quality of minerals and proximity to consumer markets. Turkey has developed a substantial capacity and production of sodium sulphate. In sodium sulphate production, Turkey is second largest in Europe and sixth in the world.

The value of chemical exports reached about USD 4.2 billion in 2007, or about 4 % of the total exports in Turkey. Major export products of the Turkish chemical industry were pharmaceuticals, soaps, disodium tetraborate refined borax, benzene, synthetic filaments, detergents and cleaning products, acrylic polymers (in primary form), boron chemicals, paints and varnishes, polyethylene terephthalate (in primary forms), disodium carbonate, polyethylene (in primary forms), preparations for perfuming or deodorising rooms, glazier's putty, petroleum oils, diammonium hydrogenorthophosphate diammonium phosphate, inorganic tanning preparations and shampoos were the other export items of Turkish chemical industry.



Medical Products

The Turkish medical devices and supplies industry is a fast developing sector. In recent years, investments in this sector have accelerated. In fact, during the past decade the industry has undergone a significant change. The number of items produced has increased and at the same time the quality has improved. The number of manufacturers in the industry has increased as well.

The Turkish medical devices and supplies industry fulfils domestic demand for some products and also exports a relatively significant amount. In 2007 exports totaled approximately USD 156.2 million. The major product groups in exports were medical & diagnostic equipment, syringes, needles and catheters, dental instruments, medical and surgical instruments and appliances and wadding, gauze, bandages. Turkey exports these products to more than 100 countries throughout the world. The major export markets were Germany, the UK, France, Italy, Belgium, Iraq, Azerbaijan, the Netherlands, the USA and Iran.

Textile and Clothing

Turkey is one of the most important textile and clothing exporters in the world. The Turkish textile and clothing industry has the capability to meet the





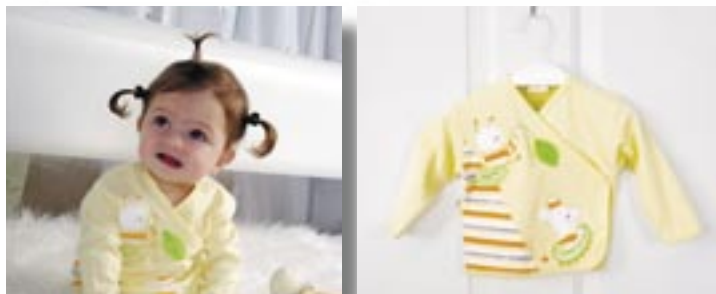
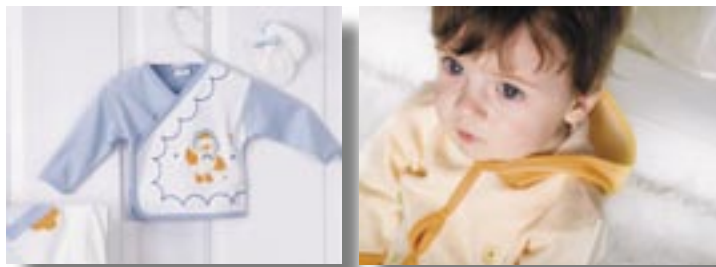
4th among the home textiles exporters. Almost all kinds of home textiles are produced in Turkey. As a division of the textile industry, the home textiles sector with an export value of about USD 1.9 billion has been an important sub-sector for the Turkish economy. At present Germany (20 %), the USA (16 %), the UK (9 %), France (8 %) and the Russian Federation (5 %) are the major markets for Turkey's home textile exports.

Turkey, as a traditional cotton grower, has a great advantage in the production of textile and clothing. Turkey ranked 7th in the world production of cotton with about 850 thousand tons in the 2006/2007 season. With the completion of the Southeastern Anatolian Project (GAP), it is estimated that Turkey's cotton production will be twofold. Irrigation of the Harran Plain began in 1994 and now 471 thousand tons of cotton, which is more than half of Turkey's total cotton production, is cultivated in this region.

high standards and can compete in international markets in terms of high quality and a wide range of products. Textile and clothing exports reached to USD 23 billion in 2007 and had a share of 22 % in total exports of Turkey. The Turkish clothing industry, with a share of 3.6 %, is the 5th largest supplier in the world and the 2nd largest supplier to the European Union. It has a share of 4.6% in knitted clothing exports and it ranked 4th among the exporting countries. With a share of 2.7 %, Turkey ranked 8th among the woven clothing exporters in the world. With its fashion-oriented and high quality products, Turkey has been increasing her share in the main markets, especially in the European market which has high standards and sophisticated customer needs. Germany, the UK and the Netherlands are the most important markets for Turkish clothing exports, with market shares of 24 %, 18 % and 7 % respectively. In 2007, Turkish companies exported more than 170 countries in the world.

The Turkish textile industry, with an export value of USD 9.5 billion, is the world's largest 14th exporter. Main export markets are Germany (9 %), the Russian Federation (8 %), Italy (8 %), the USA (7 %), Romania (5 %) and the UK (5 %). In recent years, the production of home textiles has shown a significant increase due to the rise both domestic and world demand for home textiles. Turkey ranked





Jewellery

Turkey has a great jewellery tradition. The Turkish art of jewellery making is the outcome of a unique heritage since 3000 B.C. which has been passed on from Hittites to Trojans, Urartians, Ionians, Romans, Seljuks and Ottomans. The Turkish jewellery industry reflects this rich cultural heritage combined with latest technology, outstanding craftsmanship and modern designs. Today, Turkey is one of the global leaders, both in production and in exports, ranking among the top five countries in the



world in gold jewellery production. Turkey has the total capacity to produce 400 tons of gold annually.

Turkish gold jewellery export value has increased significantly in the last ten years. Exports totaled USD 1 489.8 million in 2007, while exports were only USD 109.2 million in 1996. In 2007, the major destination countries for gold jewellery exports were the USA (20.9 % share in exports), the United Arab Emirates (20.8 %), the Russian Federation (10.6 %), Italy (4.9 %), Germany (4.3 %).

Leather

The leather industry is among the traditional export sectors of Turkey. The major markets are European countries and the Russian Federation. The sector is exporting to more than 140 countries. Total exports of the leather and footwear industry were USD 869 million in 2007. The most important item exported by the industry was leatherwear products with a share of 31.3 %. Leather footwear accounted for 19.3 % of the total leather exports. The Turkish



The Turkish Economy

leather garments industry has become the ninth largest exporter in the world. Quite a number of companies in the sector are exporting their original collections with their own brand names. In 2007, leather garment exports were USD 272.2 million.



The major part of production belongs to ceramic wall and floor tiles in the ceramics industry. Besides the large production capacity, Turkish wall and floor tiles and sanitaryware have exquisite designs and superior quality. Turkey ranks 5th in the world and 3rd in the Europe in the production of ceramic tiles. The second important group of items is sanitary ware. Turkey ranks 2nd in Europe and 4th in the world in the production of ceramic sanitary ware, as well.



Exports of the ceramic industry have been increasing steadily. In 2007 exports totaled to USD 823 million. Approximately 58 % of the exports are directed to the EU countries. The major export destinations were the UK, Germany, France, Israel, the USA, Greece, Canada, Azerbaijan and Italy.

Ceramic Industry

Turkish ceramic has a long history starting several thousand years before, and with the experience of time now it has a unique beauty. Turkish classical art of Çini is famous throughout the world. At present, both the traditional types of ceramics and modern pieces are produced in Turkey.

Glass Industry

Turkish glass industry has a highly intensive production technology and a vast accumulation of know-how. Historically, glass production dates back to the Seljuk Period. Furthermore, substantial improvements were achieved in the 17th and 18th centuries during the Ottoman Empire. The high level





of production and outstanding design capacity, good quality, wide sales services and other related activities have placed the country second in Europe and third in the world.

At present, "Türkiye Şişe ve Cam Fab. A.Ş." is a group of companies in the sector which accounts for approximately 90 % of annual production with its 26 manufacturing establishments and 10 marketing and financial companies. "Şişe Cam" group ranks 10th amongst the top 25 glass firms in the world.

Glass industry exports, which were directed to over 180 countries, increase continuously and totaled to USD 828 million in 2007. Approximately 54 % of the exports are directed to the EU countries. Glass household articles constituted the main part of the exports. Glass fiber and glass wool together

ranked the second and safety glass ranked the third in the total exports in 2007. The major export destinations were Germany, the UK, Italy, Romania, Iran, France, the USA, the Russian Federation, Spain and Greece.

Furniture

Turkey is now furniture production center of the Middle East. Furniture exports have had an outstanding performance in recent years, increased from USD 105.3 million in 1998 to roughly USD 1 026 million in 2007. This is mainly due to improvements in quality and design. Main export products were: other wooden furniture, seats for motor vehicles, seats convertible into beds, wooden bedroom furniture and metal office furniture. In 2006, Turkey ranked fourth in the world exports of seats convertible into beds which are traditional items showing the large family, hospitality and past nomadic characteristics of our nation.



In 2007, Turkey exported furniture to 160 countries throughout the world. The main markets were Germany, Iraq, France, Iran, Greece and the Netherlands. In last five years, Turkish furniture companies have been establishing showrooms and depots in increasing numbers in most of these countries.



Carpets and Kilims

The carpet is a gift from the Turkish people to world civilization. Turkish woven carpets and kilims are in the most valuable collections of museums and collectors in the world, especially the ones from the Seljuk period and the Ottoman Empire. The total value of hand-made carpets and kilims exported in 2007 was about USD 141 million. Turkish hand-made carpets and kilims are exported to a wide range of countries in the world. Major export markets are the USA, Japan, Italy, France, Spain, the UK, Australia and Iraq.

Turkey not only has a strong position in the traditional Turkish hand-made carpets but also in machine-made carpet production. Turkey's total machine-made carpet capacity is over 190 billion



square meters. The total value of machine-made carpets exported in 2007 was over USD 850 million. Major export markets are Saudi Arabia, Kazakhstan, the USA, Romania, Iraq, the Russian Federation, Ukraine, Germany and Poland.

Mining Industry

Turkey possesses the biggest mine resources for most of minerals in the world. Excluding petroleum and coal there are 4 400 mineral deposits in Turkey. Today 53 different minerals are produced in Turkish mining sector. Turkey's major minerals produced are borates, chromites, magnesite, marble, basalt, perlite, pumice, barite, bentonite and feldspar.

Turkey possesses approximately 72 % of boron reserves and is the leader exporter of the mineral and boron chemicals in the world.

Turkey has a 40 % share of world marble reserves. The total reserves including proven, probable and possible reserves are about 5 billion m³. The natural stone sector in Turkey has developed significantly in the last years. Total natural stone exports were USD 1.2 billion in 2007. Processed marble ranks first with a USD 843 million export earning. Block marble takes second place with USD 302 million.



Energy

Indigenous energy production meets nearly 48 % of the total primary energy demand. Domestic production is planned to be doubled by 2010, mainly in coal (lignite) which, at present, accounts for almost half of the total energy production. The hydropower should also be increased two-fold at the same time. Primary energy resources, which are produced in Turkey, are hard coal, lignite, asphaltite, petroleum, natural gas, hydroelectric energy and geothermal energy.

The gross electricity production in Turkey reached 191237 GWh in 2007. Thermal energy is the source of 81 % of production; hydroelectric energy makes 18.7 % of it. Coal, lignite and imported coal accounted for 27.9 %, fuel oil 4 %, and natural

gas 48.5 % of thermal electricity production. The installed electricity capacity of Turkey increased by 1 % and reached about 40777,3 MWh in 2007. Electricity consumption of Turkey increased to 2685 kwh/person in 2007.

